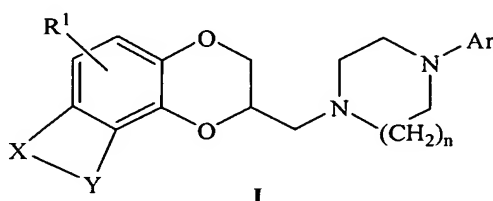


This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (*currently amended*) A compound of formula I:



wherein

R¹ is hydroxy, halo, cyano, carboxamido, carboalkoxy of 2 to 6 carbon atoms, trifluoromethyl, alkyl of 1 to 6 carbon atoms, alkanoyloxy of 2 to 6 carbon atoms, amino, mono- or di-alkylamino in which each alkyl group has 1 to 6 carbon atoms, alkanamido of 2 to 6 carbon atoms, or alkanesulfonamido of 1 to 6 carbon atoms;

the group X—Y is —N=C(R²)-C(R³)=N-, —N=C(R²)-C(R⁴)=CH-, —N=C(R²)-N=CH-, —N=C(R²)-O-, or —NH-C(R⁵)=CH-;

R² and R³ are, independently, hydrogen, halo, amino, mono- or di-alkylamino in which each alkyl group has 1 to 6 carbon atoms or alkyl of 1 to 6 carbon atoms;

R⁴ is hydrogen or alkyl of 1 to 6 carbon atoms;

R⁵ is hydrogen, halo, trifluoromethyl, pentafluoroethyl or alkyl of 1 to 6 carbon atoms;

Ar is phenyl, naphthyl, indolyl, indazolyl, thienyl, pyridinyl, pyrimidinyl, quinolinyl, benzofuranyl, **dihydrobenzodioxinyl**, benzothienyl, benzoisothiazolyl, or benzisoxazolyl, each optionally substituted with one to three substituents independently selected from hydroxy, halo, cyano, carboxamido, carboalkoxy of 2 to 6 carbon atoms, trifluoromethyl, alkyl of 1 to 6 carbon atoms, alkanoyloxy of 2 to 6 carbon atoms, amino, mono- or di-alkylamino in which each alkyl group has 1 to 6

carbon atoms, alkanamido of 2 to 6 carbon atoms, or alkanesulfonamido of 1 to 6 carbon atoms; and

n is 1 or 2;

or pharmaceutically acceptable salts thereof.

2. *(original)* A compound according to claim 1, wherein R¹ is hydrogen, halo, cyano, trifluoromethyl, alkyl of 1 to 6 carbon atoms or alkoxy of 1 to 6 carbon atoms.
3. *(original)* A compound according to claim 1, wherein R¹ is hydrogen, halo or alkoxy of 1 to 6 carbon atoms.
4. *(original)* A compound according to claim 1, wherein R¹ is hydrogen.
5. *(original)* A compound according to claim 1, wherein Ar is phenyl, quinolinyl, benzofuranyl, benzothienyl, or indolyl, each optionally substituted.
6. *(original)* A compound according to claim 1, wherein X-Y is -N=C(R²)-C(R⁴)=CH- and R⁴ is hydrogen or alkyl of 1 to 3 carbon atoms.
7. *(original)* A compound according to claim 1, wherein R² and R³ when present are independently selected from hydrogen, amino or alkyl of 1 to 6 carbon atoms.
8. *(original)* A compound according to claim 1, wherein R² and R³ when present are independently hydrogen or alkyl of 1 to 3 carbon atoms.
9. *(original)* A compound according to claim 1, wherein R⁵ is hydrogen, trifluoromethyl, pentafluoroethyl or alkyl of 1 to 6 carbon atoms.
10. *(original)* A compound according to claim 1, wherein R⁵ is hydrogen, trifluoromethyl or alkyl of 1 to 3 carbon atoms.

11. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{{4-(3-chlorophenyl)piperazin-1-yl}methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
12. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{{4-(4-chlorophenyl)piperazin-1-yl}methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
13. (*currently amended*) A compound according to claim 1, wherein said compound is (2S)-2-{{4-(3,4-dichlorophenyl)piperazin-1-yl}methyl}-8-methyl-2,3-dihydro[1,4]dioxine [2,3-f]quinoline (2S)-2-{{4-(3,4-dichlorophenyl)piperazin-1-yl}methyl}-8-methyl-2,3-dihydro[1,4]dioxine — [2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
14. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{{4-(2-methoxyphenyl)piperazin-1-yl}methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
15. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{{4-(3-methoxyphenyl)piperazin-1-yl}methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
16. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{{4-(4-methoxyphenyl)piperazin-1-yl}methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
17. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{{4-(dihydrobenzo[1,4]dioxin-5-yl)piperazin-1-yl}methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.

18. (*currently amended*) A compound according to claim 1, wherein said compound is (2S)-8-methyl-2-[4-(3-trifluoromethyl-phenyl)piperazin-1-ylmethyl]-2,3-dihydro[1,4]dioxino[2,3-f]quinoline ~~(2S)-8-methyl-2-[4-(3-trifluoromethyl-phenyl)piperazin-1-ylmethyl]-2,3-dihydro[1,4]dioxine[2,3-f]quinoline~~ or a pharmaceutically acceptable salt thereof.
19. (*currently amended*) A compound according to claim 1, wherein said compound is (2S)-8-methyl-2-[4-(3-fluorophenyl)piperazin-1-ylmethyl]-2,3-dihydro[1,4]dioxino[2,3-f]quinoline ~~(2S)-8-methyl-2-[4-(3-fluorophenyl)piperazin-1-ylmethyl]-2,3-dihydro[1,4]dioxine[2,3-f]quinoline~~ or a pharmaceutically acceptable salt thereof.
20. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(2,3-dimethylphenyl)piperazin-1-yl]methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
21. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(3,4-dimethylphenyl)piperazin-1-yl]methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
22. (*original*) A compound according to claim 1, wherein said compound is (2S)-8-methyl-2-[(4-quinolin-2-yl)piperazin-1-yl]methyl]-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
23. (*original*) A compound according to claim 1, wherein said compound is ((2S)-8-methyl-2-{4-(6-nitroquinolin-2-yl)piperazin-1-yl]methyl)-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.

24. (*original*) A compound according to claim 1, wherein said compound is (2S)-8-methyl-2-{4-(6-chloroquinolin-2-yl)piperazin-1-yl)methyl}-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
25. (*original*) A compound according to claim 1, wherein said compound is 2-(4-{[(2S)-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinolin-2-yl)methyl]piperazin-1-yl}quinoline-6-carbonitrile or a pharmaceutically acceptable salt thereof.
26. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(1-benzofuran-3-yl)-1-piperazinyl)methyl]-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
27. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(5-fluoro-1-benzofuran-3-yl)-1-piperazinyl)methyl]-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
28. (*original*) A compound according to claim 1, wherein said compound is ((2S)-2-{[4-(7-methoxy-1-benzofuran-3-yl)-1-piperazinyl)methyl]-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
29. (*original*) A compound according to claim 1, wherein said compound is (2S)-8-methyl-2-{[(2S)-2-methyl-4-quinolin-2-ylpiperazin-1-yl)methyl}-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
- I.
30. (*original*) A compound according to claim 1, wherein said compound is 2-((3R)-3-methyl-4-{[(2S)-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinolin-2-yl)methyl]piperazin-1-yl}quinoline-6-carbonitrile or a pharmaceutically acceptable salt thereof.

31. (*original*) A compound according to claim 1, wherein said compound is (2S)-8-methyl-2-{[(2R)-2-methyl-4-quinolin-2-ylpiperazin-1-yl]methyl}-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
32. (*original*) A compound according to claim 1, wherein said compound is (2S)-8-methyl-2-{[4-(2-naphthyl)piperazin-1-yl]methyl}-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
33. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-[4-8-methyl-2,3-dihydro-[1,4]dioxino[2,3-f]quinolin-2-yl)-piperazin-1-yl]-quinoline-6-carboxylic acid amide or a pharmaceutically acceptable salt thereof.
34. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-[4-(2,3-Dihydro-[1,4]dioxino[2,3-f]quinolin-2-ylmethyl)-piperazin-1-yl]-quinoline-6-carbonitrile or a pharmaceutically acceptable salt thereof.
35. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-[4-(8-Ethyl-2,3-dihydro-[1,4]dioxino[2,3-f]quinolin-2-ylmethyl)-piperazin-1-yl]-quinoline-6-carbonitrile or a pharmaceutically acceptable salt thereof.
36. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-[4-(2-Methyl-7,8-dihydro-1,6,9-trioxa-3-aza-cyclopenta[a]naphthalen-8-ylmethyl)-piperazin-1-yl]-quinoline-6-carbonitrile or a pharmaceutically acceptable salt thereof.
37. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(6-Bromoquinolin-2-yl)piperazin-1-yl]methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.

38. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(6-Bromoquinolin-2-yl)piperazin-1-yl]methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
39. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(6-methoxyquinolin-2-yl)piperazin-1-yl]methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
40. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(6-Trifluoromethoxyquinolin-2-yl)piperazin-1-yl]methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
41. (*original*) A compound according to claim 1, wherein said compound is 2-[4-(6-Fluoroquinolin-2-yl)-piperazin-1-ylmethyl]-8-methyl-2,3-dihydro-[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
42. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(6-methoxyquinolin-2-yl)-1,4-diazepan-1-yl]methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
43. (*original*) A compound according to claim 1, wherein said compound is 2-(4-{[(2S)-8-Methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinolin-2-yl]methyl}-1,4-diazepan-1-yl)quinoline-6-carbonitrile or a pharmaceutically acceptable salt thereof.
44. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(6-Trifluoromethoxy-quinolin-2-yl)-1,4-diazepan-1-yl]methyl}-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.

45. (*original*) A compound according to claim 1, wherein said compound is 2-[4-(6-Fluoro-quinolin-2-yl)-[1,4]diazepan-1-ylmethyl]-8-methyl-2,3-dihydro-[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
46. (*original*) A compound according to claim 1, wherein said compound is (2S)-2-{[4-(6-Bromo-quinolin-2-yl)-1,4-diazepan-1-yl]methyl]-8-methyl-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
47. (*original*) A compound according to claim 1, wherein said compound is 8-Methyl-2-(4-quinolin-2-yl-[1,4]diazepan-1-ylmethyl)-2,3-dihydro-[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
48. (*original*) A compound according to claim 1, wherein said compound is 8-Methyl-2-[4-(4-methyl-quinolin-2-yl)-[1,4]diazepan-1-ylmethyl]-2,3-dihydro[1,4]dioxino[2,3-f]quinoline or a pharmaceutically acceptable salt thereof.
49. (*original*) A method of treating a subject suffering from a condition selected from depression, anxiety, panic disorder, post-traumatic stress disorder, premenstrual dysphoric disorder, attention deficit disorder, obsessive-compulsive disorder, social anxiety disorder, generalized anxiety disorder, obesity, eating disorders, vasomotor flushing, cocaine and alcohol addiction, and sexual dysfunction, comprising the step of:
- providing to said subject suffering from said condition, a therapeutically effective amount of a compound according to claim 1 or a pharmaceutically acceptable salt thereof.
50. (*original*) A method according to claim 49, wherein the condition is depression.

51. (*original*) A method according to claim 49, wherein the condition is selected from the group consisting of obsessive-compulsive disorder, panic attacks, generalized anxiety disorder, and social anxiety disorder.
52. (*original*) A pharmaceutical composition, comprising:
an effective amount of a compound according to claim 1 or a pharmaceutically acceptable salt thereof; and
a pharmaceutically acceptable carrier or excipient.